

CLAIMS

1. A lead body, comprising:
an inner insulator;
5 an outer insulator positioned around the inner insulator, wherein
the outer insulator and the inner insulator are fused together;
at least one conductor is wound between the inner insulator and
the outer insulator.
- 10 2. A lead body, as in Claim 1, further comprising a lumen.
3. A lead body, as in Claim 1, comprising a plurality of conductors,
wherein the inner insulator is fused to the outer insulator to electrically isolate
the plurality of conductors.
- 15 4. A lead body, as in Claim 1, further comprising at least one insulating
spacer spirally wound about the insulator between the wound conductors.
5. A lead body, as in Claim 4, wherein the at least one insulating spacer is
20 fused to at least one of the inner insulator and the outer insulator.
6. A lead body, as in Claim 1, wherein the inner insulator and the outer
insulator are composed of a material selected from the group of polyurethane
and silicone rubber.

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7. A lead body, comprising:
an inner means for insulating;
an outer means for insulating, wherein the outer means for insulating is positioned around the inner means for insulating, and the
5 outer means for insulating and the inner means for insulating are fused together;
at least one means for conducting is wound between the inner means for insulating and the outer means for insulating.
- 10 8. A lead body, as in Claim 7, further comprising a means for inserting a stylet longitudinally through the lead body.
9. A lead body, as in Claim 7, comprising a plurality of means for conducting, wherein the inner means for insulating is fused to the outer means
15 for insulating to electrically isolate the plurality of conductors.
10. A lead body, as in Claim 7, further comprising at least one means for spacing secured between the means for conducting.
- 20 11. A lead body, as in Claim 10, wherein the means for spacing is fused to the inner means for insulating and the outer means for insulating.
12. A lead body, as in Claim 7, wherein the inner means for insulating and the outer means for insulating are composed of a material selected from the
25 group of polyurethane and silicone rubber.

13. A method for manufacturing a lead body, comprising:

providing a mandrel having an inner insulating material disposed intermediate a first end and a second end of the mandrel, wherein the mandrel extends beyond the inner insulating material at the first end and the second end of the mandrel;

securing a first end of at least one conductor to the first end of the mandrel;

positioning the at least one conductor spirally around the inner insulating material and securing a second end of the at least one conductor to the second end of the mandrel;

disposing an outer insulating material around the wound conductors coextensive with the inner insulating material; and

fusing the inner insulator to the outer insulator.

14. A method, as in Claim 13, wherein fusing the inner insulator to the outer insulator further comprises:

disposing shrink-wrap tubing over the outer insulating material;

and

heating the shrink-wrap, the outer insulating material and the inner insulating material to shrink the shrink-wrap tubing and fuse the outer insulating material to the inner insulating material.

15. A method, as in Claim 13, wherein fusing the inner insulator to the outer insulator further comprises:

disposing tubing over the outer insulating material;

sealing a first end of the tubing;

5 applying a partial vacuum to a second end of the tubing; and

heating the tubing, wherein the partial vacuum draws the outer insulating material and the inner insulating material into contact and the heating fuses the outer insulating material to the inner insulating material.

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16. A method, as in Claim 13, further comprising removing the mandrel from the inner insulator to form a lumen.

17. A method, as in Claim 13, further comprising removing the shrink-wrap material.

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18. A method, as in Claim 13, wherein the winding of the conductors, comprises spirally winding the conductors.

20 19. A method, as in Claim 18, further comprising:

providing at least one insulating spacer; and

spirally winding the insulating spacer between the conductors.

20. A method, as in Claim 13, wherein the inner insulator and the outer insulator are selected from the group consisting of polyurethane and silicone rubber.

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